

**MINUTES
of the
FIFTH MEETING
of the
RADIOACTIVE AND HAZARDOUS MATERIALS COMMITTEE**

**October 29, 2007
Cibola County Convention Center
515 West High Street
Grants, New Mexico**

**October 30, 2007
Tour of Uranium Mining Sites
Grants, New Mexico**

The fifth meeting of the Radioactive and Hazardous Materials Committee (RHMC) was called to order by Representative John A. Heaton, chair, at 10:00 a.m. on October 29, 2007 in the Cibola County Convention Center in Grants, New Mexico.

Present

Rep. John A. Heaton, Chair
Sen. Richard C. Martinez, Vice Chair
Rep. William J. Gray
Sen. Gay G. Kernan
Rep. Antonio Lujan
Rep. Jim R. Trujillo

Absent

Sen. Vernon D. Asbill
Sen. John T.L. Grubestic
Sen. Carroll H. Leavell
Rep. Jeannette O. Wallace

Advisory Members

Sen. Rod Adair (10/29)
Rep. Thomas A. Anderson
Sen. John Pinto (10/29)
Rep. Jeff Steinborn

Rep. Donald E. Bratton
Sen. Mary Jane M. Garcia
Sen. William H. Payne
Rep. Nick L. Salazar
Rep. Peter Wirth

Guests

Rep. Ernest H. Chavez
Rep. Nathan P. Cote (10/30)
Rep. Justine Fox-Young (10/29)
Sen. Lynda M. Lovejoy (10/29)
Rep. Patricia A. Lundstrom (10/29)
Rep. W. Ken Martinez (10/29)
Rep. John Pena
Sen. Lidio G. Rainaldi (10/29)

Sen. David Ulibarri (10/29)
Rep. Gloria C. Vaughn

(Attendance dates are noted for those not present for the entire meeting.)

Staff

Evan Blackstone
Chase Van Gorder
Aldis Philipbar

The guest list is in the original meeting file.

Monday, October 29

Representative Heaton began the meeting by having committee members and guests introduce themselves. Joe Murrietta, mayor, City of Grants, welcomed the committee to Grants and stated he is looking forward to an informative discussion on uranium mining. He informed the committee that he worked for Anaconda for 15 years and that many things have happened over the past 20 to 30 years with regard to environmental and health improvements in the uranium mining industry. He went on to point out that uranium mining companies are more responsible now and that he is looking forward to the economic benefits that a renewal of the uranium industry would bring to Grants.

Representative Martinez then welcomed the committee to Grants and stated that he is glad the committee is willing to listen to all sides in the debate to renew uranium mining in the area.

Elmer Chavez, chair, Cibola County Commission, welcomed the committee and stated that it is essential that the uranium resources located in Cibola County be developed in order to provide a secure domestic source of energy. He provided the committee with a resolution passed by the Cibola County Commission in July 2007 that supports the domestic uranium mining and milling industry. Mr. Chavez indicated that he is confident that uranium mining can be conducted in a safe manner and that it will bring jobs to the area and enhance the quality of life in New Mexico.

Representative Heaton stated that climate change is a tremendously important issue to the nation and the world. The amount of carbon emissions produced by China has surpassed that of the United States, and the events occurring due to climate change are shocking. Representative Heaton pointed out that there has been a significant change in the amount of carbon dioxide in the atmosphere. It is necessary, Representative Heaton said, that the background discussion be underlined with the issue of climate change because it will impact the world in a very dramatic way.

Uranium Mining Legacy, Regulation and Cleanup: Past, Present and Future

John Goldstein, director, Water and Waste Management Division, Department of Environment (NMED), provided the committee with an overview of uranium mining and processing regulations in New Mexico. He discussed the various methods of uranium mining, including underground mining, open pit mining and in situ leach (ISL) mining. He explained that the Mining and Minerals Division of the Energy, Minerals and Natural Resources Department (EMNRD) has regulatory authority over uranium exploration activities and underground and open pit mining pursuant to the New Mexico Mining Act. The NMED has regulatory authority over underground mining, open pit mining and ISL mining pursuant to the New Mexico Water Quality Act. The federal Nuclear Regulatory Commission (NRC) also has regulatory authority over ISL mining.

Mr. Goldstein went on to inform the committee that currently the NMED has no permit applications pending for ISL mining in New Mexico and one permit application pending for the Mount Taylor mine. The permit for the Mount Taylor mine is for ground water discharge, which is required for facilities that have the potential to impact ground water. Mr. Goldstein stated that the permit for the Mount Taylor mine is administratively complete and the NMED is seeking further technical information from the applicant on its proposed alternative water treatment method. Mr. Goldstein also pointed out that there will be a public process phase to the permit that will include tribal consultation. Although no ISL mining permits are pending, Mr. Goldstein explained that in addition to a ground water discharge permit, ISL requires an underground injection control permit from the NMED and an aquifer exemption from the NMED, the Water Quality Control Commission and the United States Environmental Protection Agency (EPA). A significant issue, he emphasized, is whether certain surrounding Indian lands in northwest New Mexico are under state jurisdiction. Finally, Mr. Goldstein outlined for the committee the permit categories pursuant to the New Mexico Mining Act for mining operations and exploration.

Bill Brancard, director of the Mining and Minerals Division of the EMNRD, reviewed the legacy of uranium mining and milling in New Mexico. He described the uranium deposit locations in New Mexico and stated that during and following the previous uranium mining boom in New Mexico most uranium mines operated and closed with no reclamation requirements or guidelines. However, since the 1980s, several federal, state and tribal agencies have pursued cleanup and reclamation of contaminated sites under various laws. Mr. Brancard pointed out that the responsibility for cleanup depends on who is benefitting from the sale of uranium: the government or the industry. For example, some seriously contaminated sites have been declared Superfund sites under the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which requires action by the EPA. Also, the federal Surface Mining Control and Reclamation Act of 1977 (SMCRA), originally enacted to deal with coal mines, allows funding for the cleanup of old mines and it has been used to help cleanup of uranium mines.

Next, Mr. Brancard reviewed for the committee the uranium mine inventory project conducted by the Mining and Minerals Division of the EMNRD. He explained that the purpose of the project is to identify abandoned and inactive uranium mines with historic production, to establish the status of uranium mines and to identify mining sites where no reclamation activities

have occurred. Mr. Brancard described that the project consists of a two-step process. First, it will use existing data to create an inventory of mines with verifiable production and reclamation status. Second, the division will inspect sites with no reclamation to determine the need for future reclamation work. Mr. Brancard informed the committee that the division completed step one of the project and identified over 250 mines with historic uranium production in New Mexico and identified over 100 mines with no information on reclamation activities. In the second step of the project, the division will conduct site assessments of identified sites with unknown or no reclamation history, characterize the nature of the site, determine the extent of disturbances and use the information to begin prioritizing cleanup and estimating reclamation costs. He also reiterated the problem with the checkerboard area around Indian land and said that there are differing ideas about jurisdiction between state agencies.

Stephen B. Etsitty, executive director of the Navajo Nation Environmental Protection Agency (NNEPA), stated that the legacy of uranium mining has adversely affected the air, land and water resources on the Navajo Nation, has taken a devastating toll on Navajo human health and will affect the Navajo people for generations to come. Mr. Etsitty emphasized that the Navajo people do not have the option of relocating to unpolluted land and changing their way of life. He stated that they expect their polluted lands to be restored, the uranium waste piles to be removed, their sources of water to be clean and their air to be as pristine as it was before the mining. Mr. Etsitty pointed out that many tribes in New Mexico share the Navajo Nation's concern about uranium mining. Mr. Etsitty inquired why interest in another round of mining takes precedence over human health. He questioned whether a state or federal agency will step in if a mine owner walks away.

Mr. Etsitty informed the committee that throughout his tenure he has personally visited several communities where pollutants have migrated from abandoned uranium mines, capped uranium tailings and uranium waste piles. He emphasized that some of the abandoned uranium mines and waste piles are located on adjoining state, federal and private lands and nothing prevents the migration of hazardous pollutants from one jurisdiction to another. Mr. Etsitty explained that the Navajo Nation has mitigated the physical features of some abandoned uranium mines to prevent access and to provide some measure of physical safety. However, erosion has compromised the integrity of the soil barriers so that radioactive hazardous substances beneath the soil barriers are being released into the air, land and water. Despite the Navajo Nation's efforts to have various entities address the contaminated sites, he stated, it is doubtful that resources will become readily available to ensure long-term operation and maintenance at problem sites.

Mr. Etsitty urged committee members to establish sources of cleanup funds and create a state equivalent of CERCLA. He encouraged members to determine whether uranium mine owners and operators submitted reclamation plans pursuant to the New Mexico Mining Act and to share the plans with the NNEPA on mines that affect the Navajo Nation. Mr. Etsitty also advocated that the reclamation plans provide long-term operation and maintenance to prevent hazardous substance releases and order the implementation of the plans with joint oversight by the NNEPA and the state. Finally, he emphasized that the NMED and the Mining and Minerals

Division of the EMNRD should not make unilateral decisions where Navajo Nation jurisdiction may be impacted. Rather, the Navajo Nation and the state should agree to exercise meaningful government-to-government relations so their joint efforts will have long-term benefits.

Laura Watchempino, water quality specialist for the Acoma Water Commission, said that the area being considered for mining is sacred to the Acoma people. She said that the Pueblo of Acoma is a certifying agency and that the pueblo has set its own water quality standards for radioactive substances.

Questions and comments included:

- proper jurisdiction in the Churchrock area to perform reclamation and duties of various federal and state regulatory agencies on trust land;
- clarification of checkerboard areas;
- current reclamation standards pursuant to the New Mexico Mining Act and requirements for financial assurance in case of default;
- NMED requirements for financial insurance for restoring ground water and Navajo Nation requirements;
- the length of time for the permitting process, requirements for public hearing and time spent looking at existing quality of ground water to establish baselines and what kind of financial assurance will be required;
- state requirements that permits be consistent and have at least one year of baseline data;
- Mining and Minerals Division encourages companies to submit one large application that will meet all agency requirements and works closely with other agencies to deliver consistent decisions;
- lands in the checkerboard area that the Navajo Nation claims are Indian country and where the Navajo Nation asserts jurisdiction;
- future mines will be permitted under very strict rules in order to prevent contamination;
- the state version of SMCRA and restrictions placed on funding for cleanup by the federal government;
- funding proposals by state agencies for cleanup of uranium contamination;
- the need for people who caused the uranium contamination to take responsibility for their actions;
- concerns of people who are against uranium mining, including impacts to the environment and health;
- the need for the state to protect people who live near uranium mining activities and use the ground water;
- uranium exploration permits that have been granted;
- conventional mining being proposed at Mount Taylor;
- cleanup occurring at former mill sites that are Superfund sites; and
- risk in drilling exploratory holes.

Uranium Mining Industry Update

George Byers, vice president of public affairs and communications for Neutron Energy, Inc., informed the committee that Neutron Energy is a privately held company that holds extensive uranium properties with reserves proven in the 1950s through the 1980s in the Grants region. Mr. Byers stated that New Mexico is where his company has placed its emphasis, not just because of the resources in the ground, but because of the skilled workers in the region who are ready to go to work again in the industry. He pointed out that the United States needs more energy and that nuclear energy can provide the nation with the energy it needs without further harming the climate and without putting the economy in jeopardy. Mr. Byers indicated that there is the initial likelihood that four to six new underground uranium mines will be developed from the area of the Cebolleta Land Grant and the Juan Tafoya Land Corporation east of Mount Taylor, to the region north of Grants from San Mateo to west of Ambrosia Lake. He pointed out that at Juan Tafoya and Cebolleta, the land grants have already seen income in the form of bonus and rental income as well as the commencement of annual scholarship payments by Neutron Energy to deserving students from each land grant. Mr. Byers emphasized that the northwest region of New Mexico needs rural economic development and the leaders in the area know that uranium mining will bring safe and well-paying jobs with benefits from closely regulated industries.

Rick Van Horn, executive vice president and chief operating officer for Uranium Resources, Inc. (URI), provided the committee with URI's outlook on the future of uranium mining in New Mexico. He began by briefly reviewing New Mexico's past uranium production, the current state of the market and world demand for uranium. Mr. Van Horn stated that over the past three years there has been an unprecedented increase in the price of uranium, yet not one dollar has been made from uranium production during this price cycle. Mr. Van Horn said that uranium is never a balanced market, but the world forecast looks promising and New Mexico can be at the forefront of the uranium mining resurgence. Uranium mining, Mr. Van Horn indicated, will provide 200 jobs in Grants and potentially 3,000 to 4,000 jobs in the uranium mining district. Grants was a world leader during the first uranium boom and current estimates are that 200 to 300 million pounds of uranium are in the ground in New Mexico.

Mr. Van Horn then reviewed for the committee URI's operations, properties, assets and plans for future uranium development in New Mexico. He stated that URI entered into a definitive agreement with BHP Billiton to acquire 100% ownership of Rio Algom Mining, LLC, which includes an NRC-licensed mill site and associated water rights at a price of \$110 million at closing and a \$16.5 million contingent payment. Mr. Van Horn pointed out that the mill site is currently the only NRC-licensed conventional mill site in New Mexico that reduces the time needed to build a new conventional uranium mill. Furthermore, the mill site is in the final stages of reclamation and infrastructure and facilities are already on the premises. The new Ambrosia Lake mill could be operational in four to five years, whereas new mills usually take eight to 10 years. With regard to economic impacts, Mr. Van Horn explained that the new mill will provide more than 200 jobs to local residents and open the door for an even greater industrywide impact on the state of New Mexico. With regard to environmental impacts, he noted that the new mill will be built in the footprint of the old mill and the tailings will be dry placed in double-lined, leak-detection cells. Mr. Van Horn emphasized that modern uranium mining in New Mexico

will be drastically different from the past due to more stringent regulatory standards, additional environmental safeguards and new employee safety measures that are in place.

Finally, Mr. Van Horn summarized the ISL mining process. He stated that ISL mining is a non-invasive recovery method because uranium is mined in place by reversing the natural deposit process. Existing uranium-bearing ground water is fortified with oxygen to draw uranium into the solution and then the uranium is removed from the solution onto resin beads through an ion exchange column. Mr. Van Horn pointed out that the ground water is restored to pre-mining conditions and that there is little surface or environmental impact. Addressing ground water issues, Mr. Van Horn noted that the ground water around commercial uranium deposits is naturally toxic and unsafe to drink. He explained that the ground water will still be toxic and unsafe to drink after mining ends and restoration is complete, noting that ground water will always meet the same EPA drinking water standards it met before mining began.

Douglas B. Chambers, Ph.D., executive vice president for SENES Consultants Limited, discussed environmental and health issues relating to uranium mining and radioactivity. He began by summarizing the different kinds of natural radioactivity in the environment, background levels of radiation and the average radiation doses from natural sources. Next, Mr. Chambers informed the committee that the health effects of ionizing radiation are well understood, citing the work of scientific committees such as the United Nations Committee on the Effects of Atomic Radiation (UNSCEAR) and the Biological Effects of Ionizing Radiation Committee (BEIR). He summarized some of the key observations from the recent BEIR and UNSCEAR work and noted that radiation exposure has never been demonstrated to cause hereditary effects in people but it is prudent to assume that it occurs in people. Moving to the radiological effects of uranium mining, Mr. Chambers explained that modern mining practices ensure that radiation doses to workers are low and well below regulatory criteria. He also said modern mining practices ensure that radiation doses to members of the public are low, well below regulatory criteria and within the range of variation in natural background.

Paul Pierce, manager of mine development for Uranium Energy Corp., provided the committee with a review of current mine safety standards in the uranium industry. He began by giving a brief history of the discovery of uranium in New Mexico and then went on to say that a 1967 study showed that there are between 20 to 60 working levels of radiation exposure. He explained that mining systems have become more sophisticated today and permissible levels of exposure for any individual are less than four per year. To lessen exposure, ventilation is redirected to wash out an area with exposure levels above standards or miners are removed from the area. Furthermore, the state requires the removal of miners in areas with exposure above the 1.4 level. Mr. Pierce noted that mining sites are now much healthier because of better engineering, advanced mining technology and because miners are well-trained and know their rights.

Questions and comments included the following:

- how the fluctuation in radiation exposure levels depends on the types of ore being handled by miners;

- the NRC licensing process, NRC regulations and the consistency with the NMED regulations;
- levels of harmful radiological exposure;
- the need for nuclear energy in the United States and uranium companies investing in New Mexico;
- the chances of a joint venture with Japanese uranium companies;
- the cost of uranium and associated costs with conventional and ISL mining;
- the Navajo Nation ban on uranium mining and the intent of uranium mining companies to respect the ban;
- the willingness of the uranium mining industry to support the creation of a fund that will be set up to take a percentage or fixed cost of uranium extracted and divert the money to fund reclamation;
- the extent of ground water contamination risks in ISL mining and the monitoring technology used; and
- the duty of a county to report levels of uranium in drinking water to citizens.

Environmental Impacts Associated with Uranium Mining and Milling

Richard Abitz, Ph.D., president and owner of Geochemical Consulting Services, provided the committee with testimony regarding the impacts of conventional and ISL uranium mining on human health and the environment. First, Dr. Abitz reviewed the uranium fuel cycle, explaining that the extraction of uranium and the conversion process to nuclear power has massive energy impacts that do produce greenhouse gases and that there is not a final disposal site for spent fuel rods. He went on to state that underground, open-pit mines discharge billions of gallons of contaminated mine water. Furthermore, Dr. Abitz described the process of milling uses acids or caustics to recover uranium and there are surface spills, leakages of contaminated fluids from unlined tailings piles and extensive ground water contamination. He noted that there is a legacy of ground water contamination at all active uranium mill tailings sites in New Mexico. Dr. Abitz emphasized that the active remediation techniques are ineffective given that contamination remains after 25 years. In addition, he stated, natural reduction and attenuation are not working.

Dr. Abitz then discussed ISL mining. He said ISL mining is based on the idea that water flow is homogeneous, meaning it all flows in the same direction and can be collected in one area. However, water actually flows in all directions and is heterogeneous. Dr. Abitz provided the committee with an overview of paleochannels, stating that it is difficult to control mine fluids in paleochannels during production. He explained that undetected mine fluids migrate outside the mining zone, so restoration to pre-mining water quality is virtually impossible. Furthermore, the uniform monitor well spacing used by the uranium industry is too wide to detect all excursions of mine fluids. Dr. Abitz touched on the ISL experience in Texas, summarizing that restoration to a pre-mining baseline was not achieved and the restoration was only certified after a substantial relaxation of standards. Dr. Abitz stated that the claim made by the uranium industry that ground water around uranium deposits is toxic is not always true. He emphasized that a pre-mining baseline must be established in a scientifically ethical manner and the improper calculation of average water quality, as evidenced by HRI's activities at Crownpoint, inflates the pre-mining baseline. Nevertheless, he pointed out, restoration to pre-mining quality is not

possible because the natural geochemical conditions have been destroyed.

Dr. Abitz concluded by stating that ground water contamination is a long-term consequence of uranium mining and milling, cleanup has not been accomplished at conventional mill sites in 25 years and ISL mining is incompatible with high-quality aquifers like the Westwater Canyon.

Mark Pelizza, vice president of environmental regulatory affairs for URI, said that he disagrees completely with Dr. Abitz's analysis of ISL mining. He said that water around uranium is not suitable for drinking and will never be suitable, with or without mining. Mr. Pelizza explained that there are very good reasons as to why water is not restored to pre-mining quality, including varying state requirements. Mr. Pelizza said that no mine is closed unless analysis of ground water is completed.

Questions and comments included the following:

- the NRC, which is in the business of issuing licenses, is not an independent scientific entity; and
- clarification and complexity of paleochannels and water moving through different levels to flush out contaminants.

Health Impacts of Low-Level Environmental Uranium Exposure

Dr. Johnnye Lewis, director of the Community Environmental Health Program at the University of New Mexico Health Sciences Center, provided the committee with testimony regarding the chemical toxicology of uranium and New Mexico populations. Dr. Lewis stated that uranium damages kidneys and New Mexico populations are at risk for kidney disease due to a high prevalence of diabetes and a high prevalence of chronic renal insufficiency with early onset and increased severity. Dr. Lewis reviewed for the committee what is known about occupational exposures to uranium and explained that lung cancer is the primary health risk in miners. She explained that it is not smoking-related but rather primarily the result of working underground, poor ventilation and high dust from radon. Dr. Lewis also summarized what is known from laboratory studies and population studies about uranium kidney toxicity. She informed the committee that Native American and Hispanic populations may be more susceptible to toxic results due to preexisting diseases like diabetes. In Native American communities, consumption of local food leads to increased exposure. Dr. Lewis said that small children have more long-lasting effects because of increased gastrointestinal absorption and developing kidneys.

Dr. Lewis went on to explain that the first community study of kidney health in populations at risk for kidney disease began in 2003. Since then, studies have looked into the potential cancer effects of uranium metal, neurotoxicity, oxidative stress and immunosuppression and autoimmunity. She then discussed the DiNEH Project, which is the first community health assessment in the uranium district for a population at risk for kidney disease. It is a comprehensive community-based assessment of 20 chapters of the Eastern Navajo Agency. The project includes both exposed and unexposed chapters and is a comprehensive assessment of

exposure, health, occupational history, modifying factors and disease. She said that this is the first look at the correlation between uranium exposure and kidney disease. Finally, she noted that the preliminary model results are a very early look at the data and they indicate that exposure alone is not significant. However, Dr. Lewis emphasized there is much refinement to do and not all factors have been incorporated into the modeling.

Uranium Mining: Tribal Governments Perspective

Navajo Nation Vice President Ben Shelly asked the committee members how the federal government can allow another generation of contamination when the Navajo people are still suffering. He stated that uranium mining poses a threat to the aquifer that the Navajo people rely on for drinking water and that the Navajo Nation demands that federal agencies begin cleanup of contaminated sites. Mr. Shelly pointed out that many Navajo citizens are not receiving compensation for past injuries and health problems due to uranium mining because they cannot establish residency under the Radiation Exposure Compensation Program (RECA). He explained that RECA requires documentation that many Navajos do not have and the process is taking too long. He noted that new data is needed to determine how many Navajos have been impacted by uranium mining. Mr. Shelly also informed the committee that there are various sites of unauthorized dumping that need to be evaluated and cleaned. Finally, he emphasized that the Navajo Nation's ban on uranium mining was a legislative process and that the mandate is that there will be no mining on the Navajo Nation.

Charles Long, legislative staff assistant to the speaker of the Navajo Nation Council, appeared on behalf of Speaker Lawrence T. Morgan. Mr. Long stated that uranium mining is a great concern of the Navajo Nation and especially a major concern of Speaker Morgan and the Navajo Nation Council. He informed the committee that many Navajos who have worked in mines have developed health problems, have enormous medical bills and very few have been helped by RECA. It was because of these problems, Mr. Long explained, that the Navajo Nation Council passed legislation prohibiting uranium mining on any sites within the Navajo Nation. Mr. Long said that Speaker Morgan believes that ISL mining has not been determined a safe method and that, if ISL operations are allowed to move forward, it would jeopardize the health of many Navajo families who have homes in the Ambrosia Lake area. Mr. Long went on to note that Speaker Morgan states that his office will not even discuss uranium mining issues with uranium companies until it has been determined that uranium mining is safe and a cure is found for cancer.

Ms. Laura Watchempino provided the committee with testimony on behalf of Governor Jason Johnson of the Pueblo of Acoma. She informed the committee that the pueblo has been closely studying the impact of uranium. She said the committee has a heavy responsibility and she hopes the committee does not overlook the water that the mountain provides for various tribes and peoples. Ms. Watchempino said that rivers and creeks dried up after previous uranium mining booms and the pueblo faced raised levels of dried contaminants. There was no dilution factor because there was no upstream water flow. She urged the committee to look at independent studies as opposed to industry reports and to carefully consider a generic environmental impact statement because each area is unique.

John Antonio, governor of the Pueblo of Laguna, informed the committee that the pueblo is absolutely against any proposals to resume uranium exploration and mining activities in the Grants uranium belt or anywhere near Indian country. The Tribal Council for the Pueblo of Laguna passed a resolution in opposition to New Mexico Senate Joint Memorial 10, which called for the NMED and EMNRD to collaborate with the uranium industry to resolve existing barriers and to advance consideration of uranium production in New Mexico. The pueblo operated one of the largest open pit mines in the world from 1953 to 1982. Governor Antonio pointed out that 54 years have passed and the pueblo is still dealing with the effects of mining activities. He stated that a lack of regulations forced the pueblo to establish its own environmental regulations and requirements. Reclamation work began in 1989 and was completed in 1995 at a cost of over \$43 million. Governor Antonio said that the impact of mining activities will continue to be felt long into the future. For example, surface and ground water will continue to have traces of uranium, vegetation will need continued monitoring for heavy metals and the pueblo has seen an increase in instances of cancer and birth defects.

Uranium Mining: Community Perspectives

Star Gonzales, Cibola Communities Economic Development Foundation, said that uranium companies will work for Cibola County and that the industry will provide new jobs and educational opportunities and will bring in new businesses. She said that uranium mining is a great way for people in the community to make a good wage. She emphasized that there is an optimistic air in the community due to the prospect of uranium mining resuming and that the community is very much in support of the industry. Ms. Gonzales also explained to the committee that nuclear energy and uranium production is a solution to the nation's energy problems as well as climate change. She noted that the community will work closely with state and federal agencies to ensure that uranium activities will be safe.

Milton Head, speaking on behalf of the Bluewater Valley Downstream Alliance, provided the committee with data on the identified environmental effects on ground water in the Grants mineral belt. He said that contaminated water covers 45 square miles around the Homestake uranium mill site near Milan and primarily affects domestic users southwest of the mill site. Mr. Head reviewed the production of the mill site and the results of a 1975 study conducted by the EPA on the impact of mining and milling discharges in the area. He stated that the study revealed that pollution from uranium tailings is in the alluvial aquifer and four Chinle aquifers and that it also appears to be in the San Andreas Aquifer. Mr. Head pointed out that all of these aquifers must be cleaned of pollution and restored back to usable drinking water quality. He noted that the progression of the pollutants has greatly expanded over time, moving closer to municipal-supply wells, and it is happening in spite of reclamation efforts. Data from three of the five uranium mills in the Grants area revealed that, due to the use of unlined tailings ponds, 60,825 acre-feet of contaminated water had seeped into various aquifers. The water discharge for the Ambrosia Lake mine has been in excess of 514,389 acre-feet of contaminated water entering into surface drainage. Mr. Head said that a conservative estimate of total mine and mill discharge is in excess of 575,389 acre-feet of contaminated water has entered the soils and waters in the area. Mr. Head emphasized that remediation would require enacting new legislation that identifies tailings as pollutants, funding the NMED adequately, establishing field

offices, identifying characteristics of contaminated alluvial aquifers, establishing an adequate monitoring system and designing and implementing a remediation program. Furthermore, he said, the Homestake and Anaconda sites should be moved to below grade, with lined ponds that are not located above an alluvial or shallow aquifer. Mr. Head concluded by stating that pollution problems must be prevented in the next round of uranium development.

Leona Morgan, a representative of the Eastern Navajo Dine Against Uranium Mining (ENDAUM), said ENDAUM was founded in 1994 after a founder noticed that some experimental ISL mining at a mine site was causing contamination. Ms. Morgan said that statements that water used in ISL is already contaminated and not used for consumption are untrue. ENDAUM is concerned for the future well-being of people, animals and the environment. She emphasized that Mount Taylor is a sacred site of the Navajo people and that uranium mining activities should not take place on that site. She asked that committee members and the uranium industry respect the sacredness of Mount Taylor. Ms. Morgan also pointed out that ENDAUM has fought the uranium industry for nine years and it will continue its work in protecting water sources. She said over 1,000 abandoned mines are located on the Navajo Nation and they are having an effect on the health of the people and the animals as well as the land. Finally, Ms. Morgan indicated that New Mexico needs to look to other forms of sustainable energy like wind and solar power rather than nuclear energy.

Uranium Mining: Local Government Perspectives

Ernest Bicenti, commissioner, McKinley County Board of County Commissioners, said that the uranium industry touches people at local, national and global levels. He said the uranium industry will benefit the state by bringing in revenues. New Mexico is not a rich state, so its people have to consider what resources would be used beneficially and safely. Mr. Bicenti said he is sure the committee members will make the right decision as they were elected to look out for the people.

Public Comment

Ben House, president of the Eastern Navajo Allottee Association, told the committee that allottees have the right to develop their land. He said the Navajo Nation has a 50% unemployment rate and that those who oppose uranium do not pose an alternative. Mr. House said he will support the uranium industry as long as they protect the environment and the health of the people. He believes the industry will bring about economic benefits and restore the livelihood of the people.

Linda Evers, a member of the Post 71 Workers Committee, said that her organization is in the process of running surveys in 20 states. They have received over 200 responses from Grants. All of the responders are sick: 75.8% have cancer and 92% have genetic problems with their children. She said she understands that jobs are needed, but the legislature should consider clean, renewable energy.

Paul Robinson, research director at the Southwest Research and Information Center, said that there is not a shortage of uranium in the ground around the world and that New Mexico does

not have a unique source. Wind and solar energy are the true goldmines of New Mexico. He said the price of uranium has dropped 40% in the last three months and it is not a stable resource.

Abe Medina and Israel Martinez informed the committee that they both worked in the mines during the previous uranium boom. Both have been plagued by illness and health problems since that time.

Andrew Leo Lopez, a lobbyist for the Cañoncito Band of Navajo who reside on the To'hajiilee Reservation, said the band is opposed to uranium mining. He said that the band led the way in prohibiting uranium mining and milling on Navajo land. Mr. Lopez stated they are not opposed to economic development, but they are not going to glow in the dark to make a buck. Radon gas is carcinogenic and there is no vaccination for radon ingestion.

John Boomer, a resident of the Navajo Nation for 40 years, lives two miles from the Homestake site. He said the uranium mining industry has had a poor record in the past and has not shown much sign of improvement.

Robert Salazar, a uranium driller from 1969 to 1980, said that no one has discussed the drillers who were contaminated.

June Lorenzo was part of a governor's task force that looked at making New Mexico livable. She said that New Mexicans must think about sustainable development and that uranium is not a renewable resource.

There being no further business, the committee recessed at 7:30 p.m.

Tuesday, October 30

The committee took tours of the Homestake Mining Company's reclamation project near Milan and of the Rio Algom uranium mill site near Ambrosia Lake, which is scheduled to be acquired by URI.

There being no further business, the committee adjourned at 2:30 p.m.